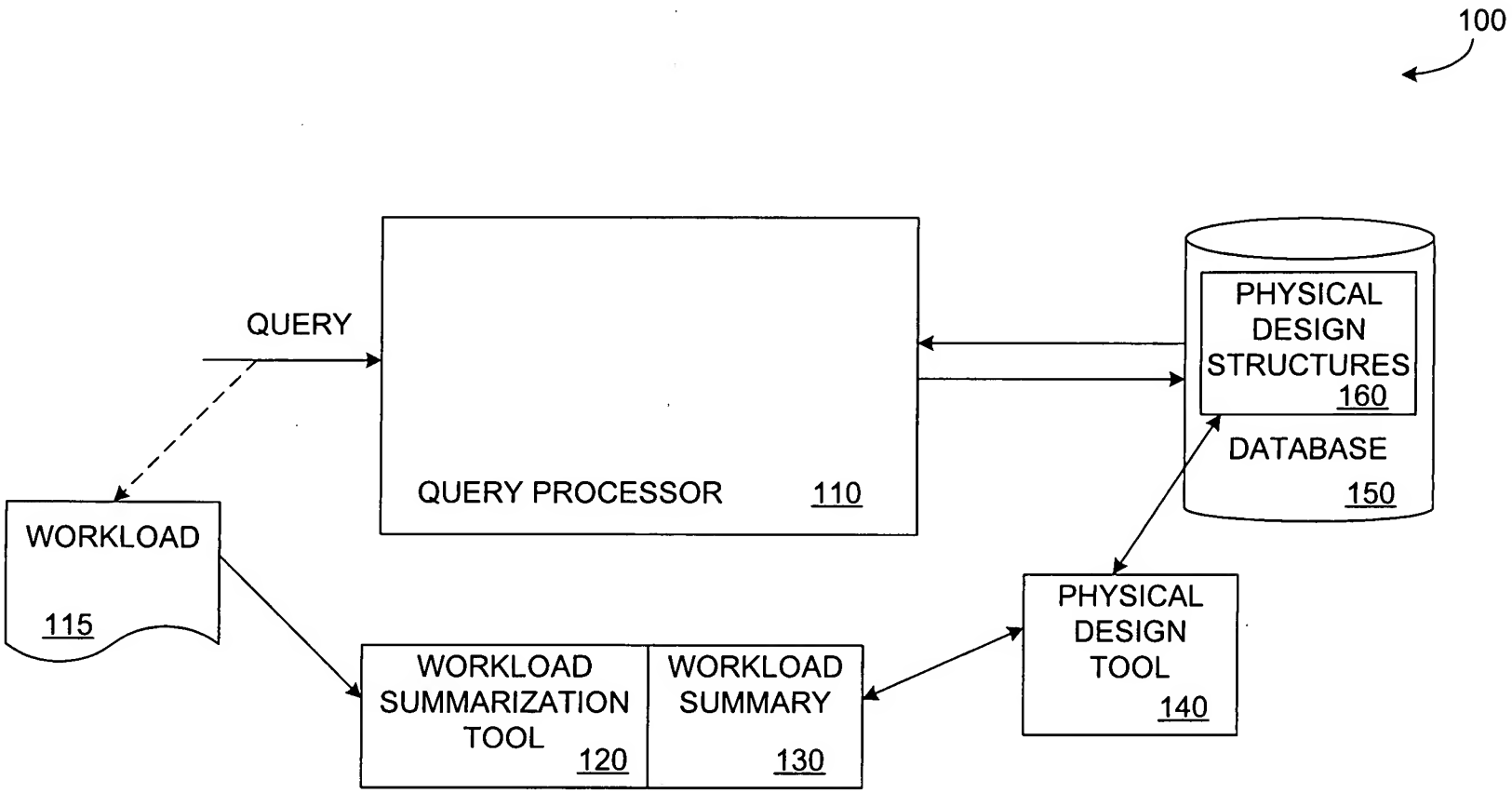
100
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110
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160
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150
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115
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TOOL
120
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130
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Fig.1

ATTRIBUTE	TYPE	MEANING
StmtType	Atomic	Statement type: (SELECT, UPDATE, INSERT, DELETE)
SQLString	Atomic	SQL String of statement
Timestamp	Datetime	Time when statement was executed
User	Atomic	Name/Id of user issuing statement
Application	Atomic	Name of application issuing statement
Weight	Atomic	A number representing the importance of this statement in the workload
FromTables	Set	Set of tables referenced in FROM clause
WhereCols	Set	Set of columns referenced in WHERE clause
JoinConds	Set	Set of join conditions in statement
GroupByCols	Set	Set of columns in GROUP BY clause
OrderByCols	Sequence	Set of columns in ORDER BY clause
ProjCols	Set	Set of columns projected in query
EstimatedCost	Atomic	Optimizer estimate of query cost from plan
ExecutionCost	Atomic	Elapsed time executing statement
CPUTime	Atomic	CPU time executing statement
IOTime	Atomic	I/O time executing statement
Memory	Atomic	Max memory consumed during statement execution
IndexesUsed	Set	Set of indexes used in answering statement

Fig.2

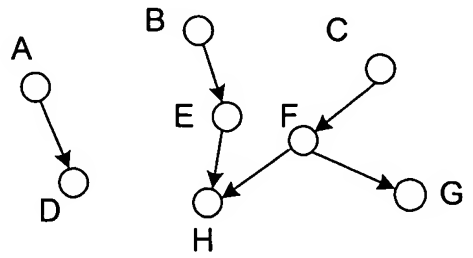
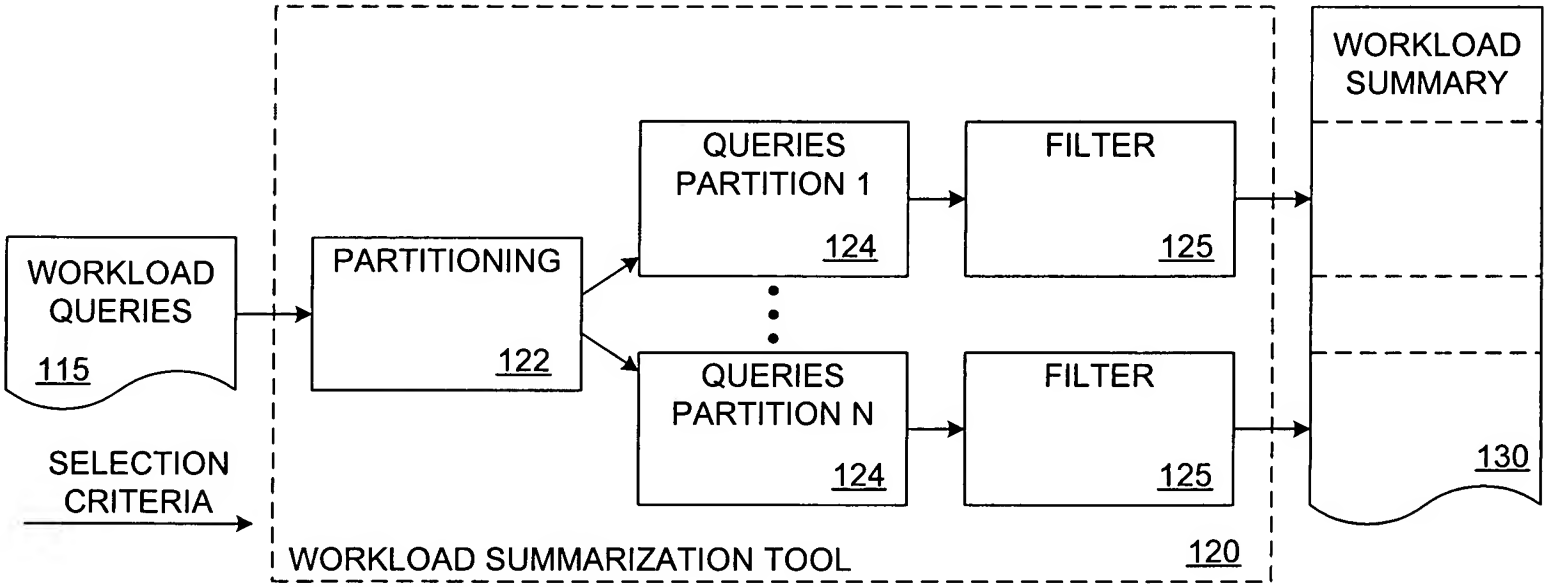


Fig.3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PARTITION 1
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PARTITION N
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WORKLOAD SUMMARIZATION TOOL
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Fig.4

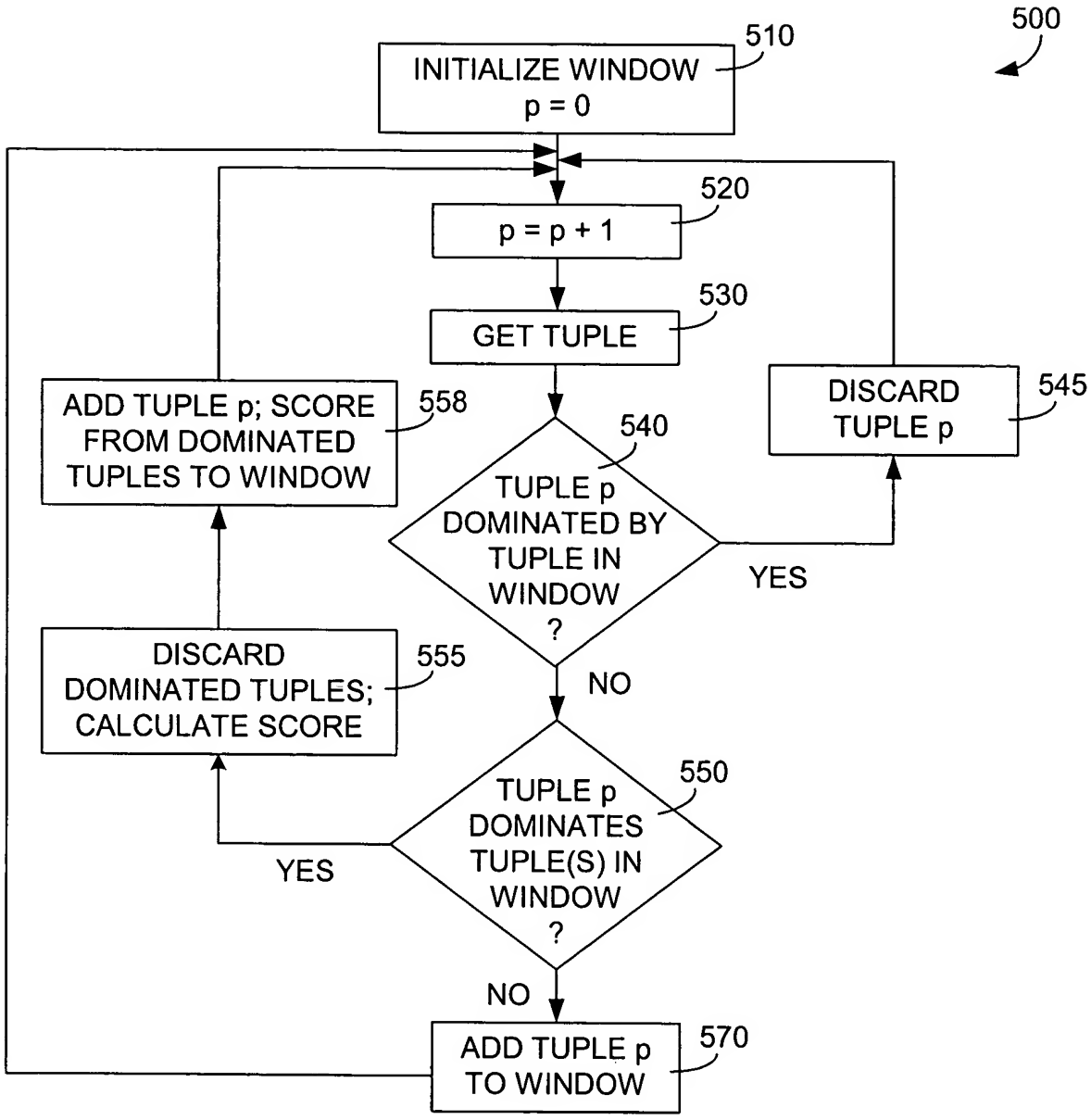

500
INITIALIZE WINDOW
p = 0
510
p = p + 1
520
GET TUPLE
530
TUPLE p DOMINATED BY TUPLE IN WINDOW ?
540
YES
DISCARD TUPLE p
545
NO
TUPLE p DOMINATES TUPLE(S) IN WINDOW ?
550
YES
DISCARD DOMINATED TUPLES; CALCULATE SCORE
555
ADD TUPLE p; SCORE FROM DOMINATED TUPLES TO WINDOW
558
NO
ADD TUPLE p TO WINDOW
570

Fig.5

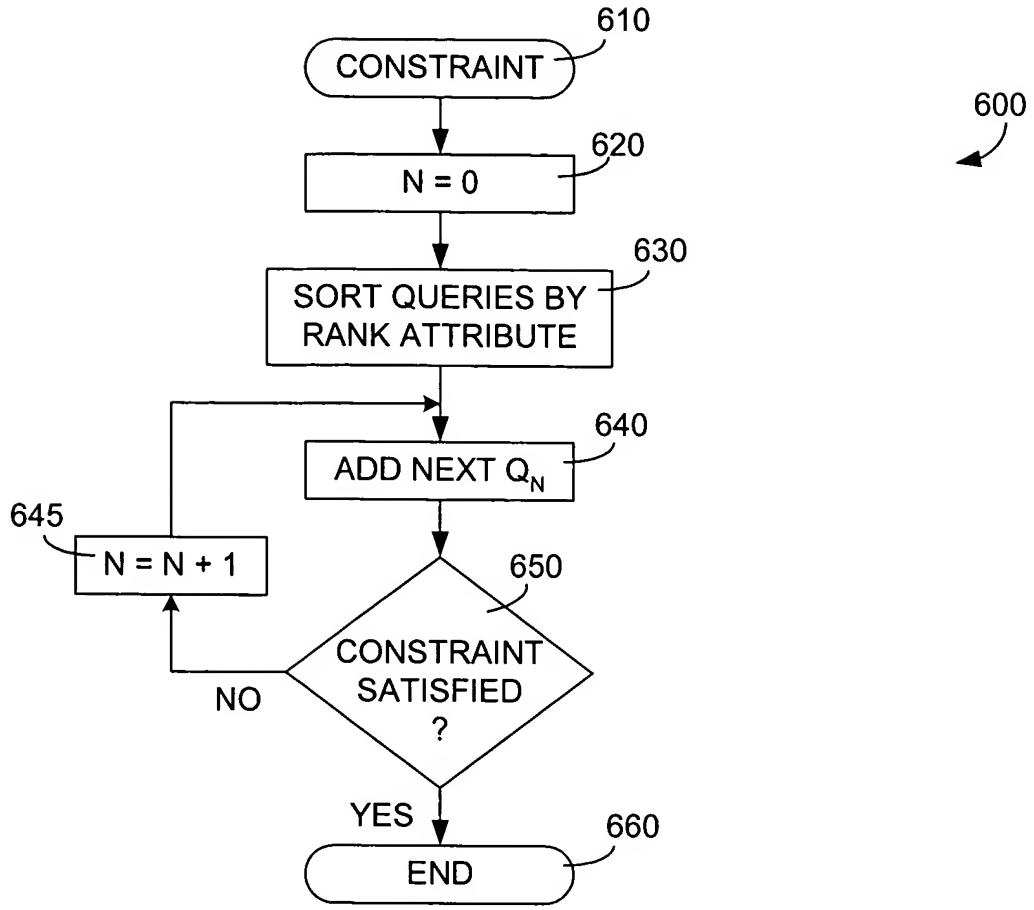
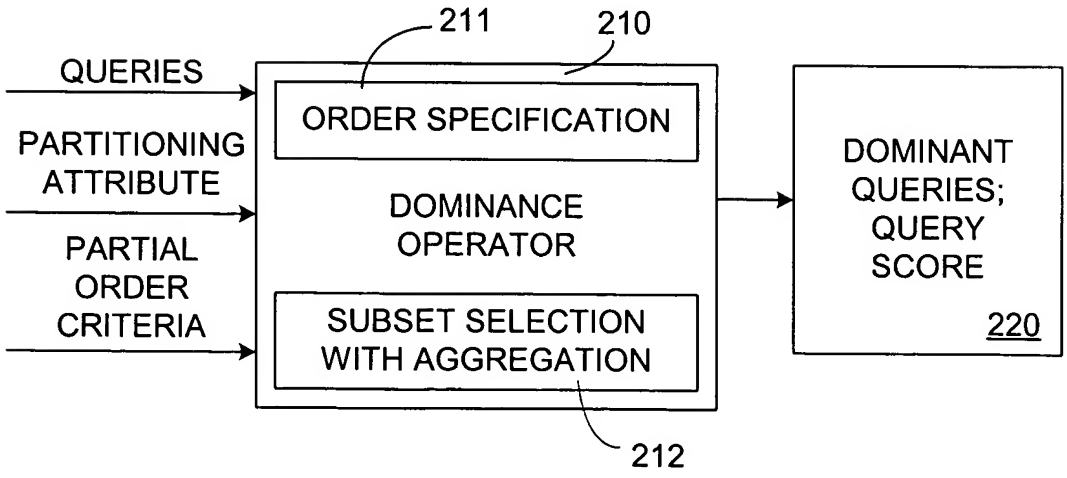

610
CONSTRAINT
600
620
N = 0
630
SORT QUERIES BY RANK ATTRIBUTE
640
ADD NEXT Q_N
645
N = N + 1
650
CONSTRAINT SATISFIED ?
NO
YES
660
END

Fig.6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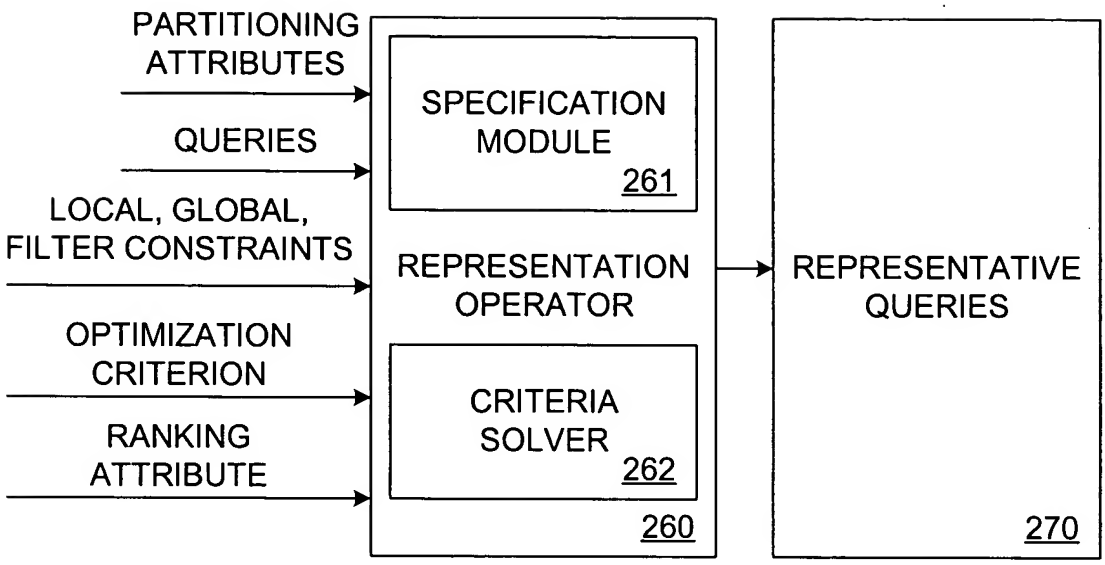
ORDER SPECIFICATION
PARTITIONING ATTRIBUTE
DOMINANCE OPERATOR
PARTIAL ORDER CRITERIA
SUBSET SELECTION WITH AGGREGATION
212
DOMINANT QUERIES; QUERY SCORE
220

Fig.7


PARTITIONING ATTRIBUTES
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CRITERIA SOLVER
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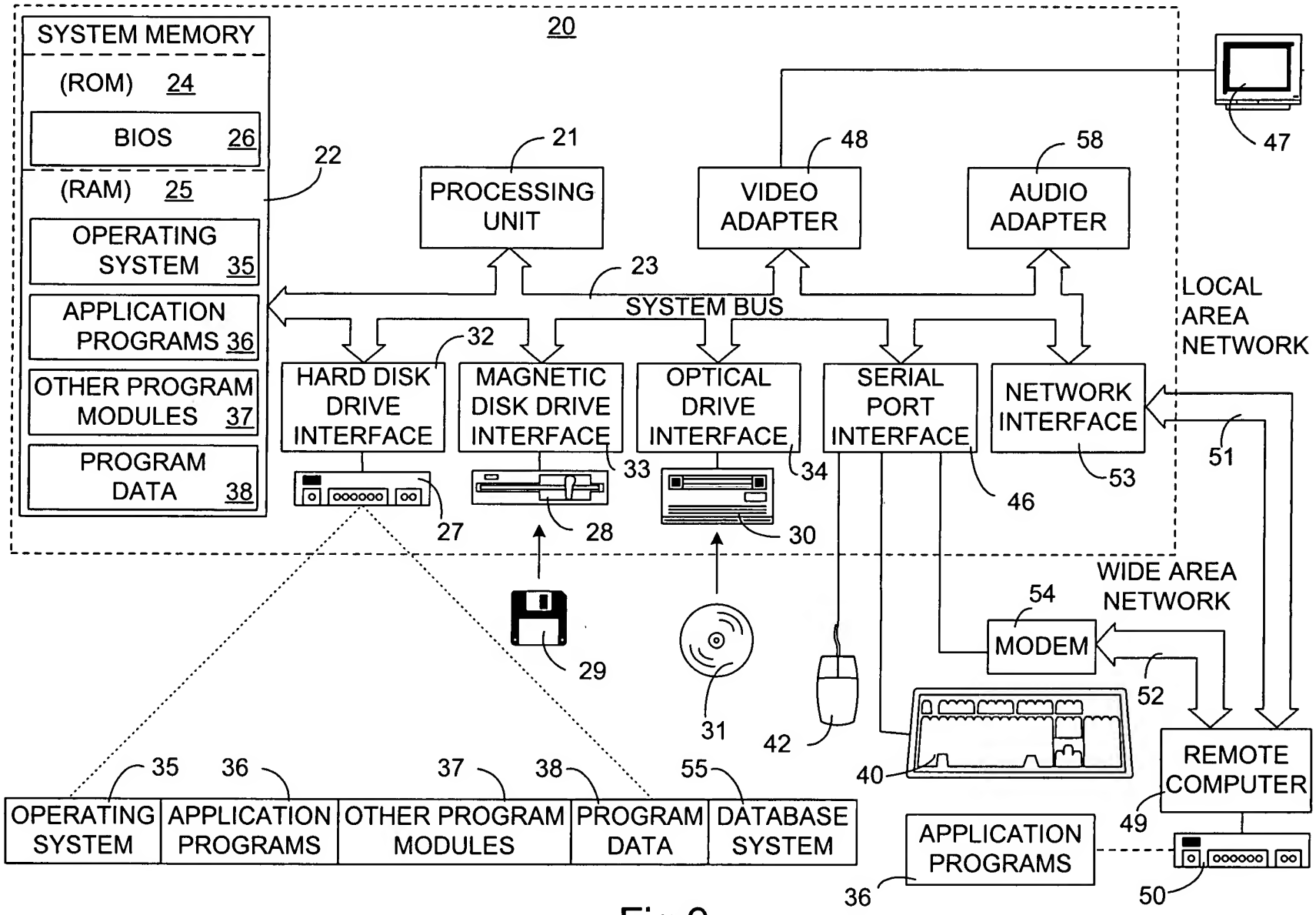
Fig.8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APPLICATION PROGRAMS
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PROGRAM DATA
DATABASE SYSTEM

Fig.9